Findings that shed new light on the possible pathogenesis of a disease or an adverse effect

Spontaneous presacral haematoma mimicking rectal malignancy – an unusual consequence of anticoagulation

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Summary

An 81-year-old man on warfarin was admitted to hospital after 3 days of constipation, straining and mild rectal bleeding. A large, boggy mass was felt posteriorly on direct rectal examination. Investigations revealed a normocytic anaemia and a supratherapeutic international normalised ratio (INR). Fearing a late presentation of malignancy, an urgent CT of abdomen and pelvis was arranged which showed a homogeneous mass arising between the sacrum and the rectum. Given the anaemia in the presence of anticoagulation, and subsequent widespread perineal and scrotal ecchymosis, the patient was diagnosed with atraumatic presacral haematoma. Following resuscitation, the patient was managed non-operatively and was discharged several days later following stabilisation of the haemoglobin and INR. At 3 months, he had complete clinical and radiological resolution of this haematoma.

BACKGROUND

This case is important because it highlights the need of suspecting intrapelvic bleeding in the over-warfarinised, anaemic patient with rectal symptoms. It also underlines the importance for searching for unusual clinical clues to haemorrhage, such as a smooth mass per-rectum, or scrotal, perineal or perianal ecchymosis (which may be a delayed sign), which help to distinguish these haematoma from malignancy and other differentials. Furthermore, this case illustrates that these patients can be successfully managed non-operatively, perhaps because the rigid boney pelvis may restrict propagation to life-threatening bleeding. Lastly, atraumatic pelvic haematoma are unusual yet benign cause of rectal mass in the older anaemic patient with dark rectal bleeding, and should be considered to avoid anxiety from misdiagnosing malignancy.^{1–4}

CASE PRESENTATION

An 81-year-old man on warfarin was admitted to hospital after 3 days of constipation, straining, incomplete rectal emptying and passing a small quantity of dark blood per-rectum. He had been anticoagulated with warfarin following a series of transient ischaemic attacks (TIAs). Aside from pallor and a resting tachycardia, general and abdominal examination was unremarkable; however, direct rectal examination (DRE) revealed a large, smooth, boggy mass arising from the posterior rectal wall. By day 3, the patient had developed significant perineal and scrotal ecchymoses (figures 1 and 2).

INVESTIGATIONS

Following initial fluid resuscitation, a full blood count revealed a haemoglobin concentration of 8.0 g/dl, with normochromic, normocytic characteristics. His presenting international normalised ratio (INR) was 5.1.

Liver function, inflammatory and tumour markers were unremarkable.

An urgent CT of abdomen and pelvis was arranged which showed a 12 by 10 cm homogeneous mass arising between the rectum and sacrum (figure 3). Sigmoidoscopy confirmed normal rectal mucosa with a bulging posterior mass 8 cm from the anal verge.

DIFFERENTIAL DIAGNOSIS

The differential for an 80-year-old man who presents with a change in bowel habit, straining, incomplete rectal

Figure 1 Perianal ecchymosis.

Figure 2 Scrotal ecchymosis.

emptying and dark rectal bleeding includes malignancy, polyps and other benign wall abnormalities, prolapse, simple constipation and haematoma, postoperative or otherwise. A key step in distinguishing between causes is the DRE; a large, boggy mass on DRE suggests tumour or haematoma.

In this case, rectal mucosa was normal, narrowing the differential to rectal wall or presacral abnormalities such as sarcoma, gastro-intestinal stromal tumour (GIST), or, as in the case, haematoma. The homogeneous nature of the mass on the CT scan would not help to distinguish between these; clues such as an acute history, a supratherapeutic INR and ecchymosis led to a convincing diagnosis.

TREATMENT

Initially, he was resuscitated with crystalloid and blood products, including fresh frozen plasma to correct the INR. As there was no evidence of infection or compromise to adjacent structures, the haematoma was managed conservatively; active treatment was focused on surveillance for further bleeding.

OUTCOME AND FOLLOW-UP

The patient was discharged some 10 days later when his symptoms had become manageable with a stool softener and analgesia. As the patient was at high risk for further TIAs or strokes, warfarin therapy was recommenced with gradual elevation of the INR. At follow-up 6 weeks later, his symptoms had all but settled, and repeat CT showed the haematoma had halved in size. There was no evidence of underlying malignancy. At 3 months, the haematoma had completely resolved clinically and radiologically.

DISCUSSION

In the handful of prior reports, spontaneous atraumatic presacral haematoma was generally caused by coughing

Figure 3 CT, sagittal section, at the midline, showing a 10×12 cm homogeneous mass arising in the presacral space consistent with a haematoma.

or straining in a background of bleeding diatheses, such as over-warfarinisation.^{1–4} Clinical features may be insidious, although shock following extension into the abdominal retroperitoneum has also been reported.² Furthermore, compression of neurovascular structures passing in the presacral space may cause radiculopathy and paradoxical incontinence.³ A delayed clinical feature is ecchymosis in the juxtaposed tissues; this may be a useful clue in the absence or delay of radiological diagnosis by CT scanning.² In otherwise healthy individuals, the radiological and clinical characteristics may be indistinguishable from homogeneous soft tissue disorders such as sarcoma or GIST; in these situations, T2-weighted MRI may be helpful given the high water content of haematoma.⁴

In one series of atraumatic retroperitoneal haematoma, conservative treatment with fluid resuscitation, blood transfusion and correction of coagulopathy was appropriate in over half of cases, reserving embolisation for when this fails. Surgical decompression and direct haemostasis may be appropriate if a specific cause such as cancer is found.⁵ We suggest that for atraumatic presacral bleeding, conservative therapy with close surveillance may similarly be sufficient, as adequate tamponade may be achieved between the rigid true pelvis and the intact covering peritoneum. Importantly, close clinical and radiological follow-up is advised to ensure resolution of the haematoma, so as not to miss any underlying malignancy.⁶

Lastly, this case also highlights the value of a high index of suspicion of intra-abdominal or intrapelvic bleeding in warfarinised patients with acute abdominal symptoms. Although admittedly atraumatic presacral haematoma is rare, rectus sheath, preperitoneal and retroperitoneal haematoma are much more common, sometimes occult, and potentially catastrophic.⁶ In all cases, reversal of warfarin should be considered in context with the original

indication for anticoagulation and the degree of bleeding, by either vitamin K (h), prothrombin complex (min), or fresh frozen plasma (min). Certain retrospective series have found that re-warfarinisation after intracranial haemorrhage may have no effect on mortality, but we found no series examining this after abdomino-pelvic bleeding.⁷ We saw no complications of restarting warfarin our patient. As warfarin use is increasing in the prevention and treatment of venous thromboembolism and in stroke medicine, this case reinforces the need for tight control by appropriate vigilance and patient education, but suggests that bleeding should not preclude future anticoagulation once treated.

Learning points

- ▶ The need for a high index of suspicion of intrapelvic bleeding in an anaemic, overwarfarinised patient with rectal symptoms.
- ▶ Scrotal, perineal and perianal ecchymosis points to a pelvic haemorrhage although may be a delayed sign; they may help to distinguish haematoma from more sinister pathology.
- ▶ Presacral haematomas can be managed non-operatively provided there is no evidence of underlying pathology, infection or compromise to adjacent structures.
- ▶ Rewarfarinisation after the bleeding episode is treated should be considered.

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Competing interests None.

Patient consent Obtained.

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